

WHAT IS CLAIMED IS:

1. A chip carrier film comprising a metal wiring formed on a surface of a base film, a first insulating film covering the metal wiring
5 excluding a semiconductor chip connecting pad portion and a terminal connecting pad portion, a semiconductor chip connected to the semiconductor chip connecting pad portion of the metal wiring and mounted on the base film, and a second insulating film formed on a back face of the base film and having a different coefficient of curing
10 shrinkage from that of the first insulating film.

2. The chip carrier film of Claim 1, wherein the coefficient of curing shrinkage of the second insulating film is higher than that of the first insulating film.

15 3. The chip carrier film of any one of Claims 1 to 2, wherein the first insulating film and the second insulating film are formed of a thermosetting resin.

20 4. The chip carrier film of any one of Claims 1 to 2, wherein a material of the first insulating film is an urethane based resin and a material of the second insulating film is an acryl based resin, an epoxy based resin or a polyimide based resin.

25 5. The chip carrier film of any one of Claims 1 to 2, wherein a material of the first insulating film is a polyimide based resin and a material of the second insulating film is an acryl based resin or an epoxy

based resin.

6. The chip carrier film of any one of Claims 1 to 2, wherein a material of the first insulating film is an epoxy based resin and a material of the second insulating film is an acryl based resin.

7. The chip carrier film of any one of Claims 1 to 2, wherein the base film has a thickness of 35 to 40 μm .

8. A chip carrier film comprising a terminal connecting pad portion provided on both ends of a surface of a base film, a semiconductor chip carrier region interposed between the terminal connecting pad portions on the ends, a first insulating film formed in a semiconductor chip carrier region on the surface of the base film, and a second insulating film formed in the semiconductor chip carrier region on a back face of the base film and having a different coefficient of curing shrinkage from that of the first insulating film.

9. The chip carrier film of Claim 8, wherein the coefficient of curing shrinkage of the second insulating film is higher than that of the first insulating film.

10. The chip carrier film of any one of Claims 8 to 9, wherein the first insulating film and the second insulating film are formed of a thermosetting resin.

11. The chip carrier film of any one of Claims 8 to 9, wherein

a material of the first insulating film is an urethane based resin and a material of the second insulating film is an acryl based resin, an epoxy based resin or a polyimide based resin.

5 12. The chip carrier film of any one of Claims 8 to 9, wherein a material of the first insulating film is a polyimide based resin and a material of the second insulating film is an acryl based resin or an epoxy based resin.

10 13. The chip carrier film of any one of Claims 8 to 9, wherein a material of the first insulating film is an epoxy based resin and the material of the second insulating film is an acryl based resin.

15 14. A method of manufacturing a chip carrier film comprising the steps of: etching a metal film formed on a surface of a base film to form a metal wiring; coating a first insulating film to cover the metal wiring; mounting a semiconductor chip on the base film to be connected to the metal wiring; coating a back face of the base film with a second insulating film having a different coefficient of curing shrinkage from
20 that of the first insulating film; and curing the first and second insulating films.

15 15. The method of Claim 14, wherein the second insulating film having a high coefficient of curing shrinkage than that of the first insulating film is coated and these insulating films are cured.

16. The method of any one of Claims 14 to 15, wherein the

first insulating film and the second insulating film are cured by heating.

17. A liquid crystal display device comprising a metal wiring formed on a surface of a base film, a first insulating film covering the metal wiring excluding a semiconductor chip connecting pad portion and a terminal connecting pad portion, a semiconductor chip connected to the semiconductor chip connecting pad portion of the metal wiring and mounted on the base film, a circuit board and a liquid crystal display panel which are connected to the terminal connecting pad portion of the metal wiring, and a second insulating film formed on a back face of the base film and having a different coefficient of curing shrinkage from that of the first insulating film.

18. The liquid crystal display device of Claim 17, where the coefficient of curing shrinkage of the second insulating film is higher than that of the first insulating film.

19. The liquid crystal display device of any one of Claims 17 to 18, wherein the first insulating film and the second insulating film are formed of a thermosetting resin.

20. The liquid crystal display device of any one of Claims 17 to 18, wherein a material of the first insulating film is an urethane based resin and a material of the second insulating film is an acryl based resin, an epoxy based resin or a polyimide based resin.

21. The liquid crystal display device of any one of Claims 17

to 18, wherein a material of the first insulating film is a polyimide based resin and a material of the second insulating film is an acryl based resin or an epoxy based resin.

5 22. The liquid crystal display device of any one of Claims 17 to 18, wherein a material of the first insulating film is an epoxy based resin and a material of the second insulating film is an acryl based resin.

10 23. The liquid crystal display device of any one of Claims 17 to 18, wherein the terminal connecting pad portion should be provided on both ends of the base film, one of the ends of the terminal connecting pad portion should be connected to the circuit board and the other end of the terminal connecting pad portion should be connected to the liquid crystal display panel.

15 24. The liquid crystal display device of any one of Claims 17 to 18, wherein the base film has a thickness of 35 to 40 μm .